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## **INSPECTION AND ACCEPTANCE PILE POINTS FOR STEEL H-PILES (4167.02)**

### **GENERAL**

Pile points for steel H-piles shall meet the requirement of Article 4167.02 of the Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction.

When required by the plans, pile points for steel H-piles shall be cast-in-one-piece meeting requirements of ASTM A 27, Grade 65-35, or an approved equal. The points shall be provided with sufficient flange and continuous web vertical back-ups to assure proper alignment and fitting to the piles. The pile points shall provide full bearing for the piles and shall be attached to the piles to insure full transmission of the driving energy to the points.

The Office of Bridge Design shall specify, by a note on the plans, when pile points are required and may specifically require certain pile points based on driving conditions of the piles.

### **MANUFACTURER APPROVAL**

The manufacturer shall submit detailed drawings of pile points showing material, weight, and dimensions of model numbers to the Office of Materials for approval by the engineer. The model numbers on the drawings must be physically identifiable on pile points furnished for projects. The manufacturer shall submit a recommended fastening procedure.

### **ACCEPTANCE**

Acceptance will be based on a certificate of compliance from an approved manufacturer listed in Appendix A. The certificate from the manufacturer shall state the grade of cast steel, model number of pile points furnished, number of pieces furnished, the contractor or jobber, and the project number. Jobbers or other suppliers of material from an approved manufacturer shall furnish the above information along with a certificate of compliance from the approved manufacturer. The jobber, or other material supplier, shall also certify as follows:

The materials itemized in this shipment are certified to meet the requirements of the applicable specifications of the Iowa Department of Transportation.

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(Authorized signature and date)

A responsible company representative shall sign the certification statement.

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One copy of the certified bill of materials or invoice shall accompany each shipment and shall remain at the delivery point for the project inspector, or shall be forwarded directly to the Project Engineer. In addition, one copy shall be forwarded to the Transportation Center Materials Engineer with project responsibility, and one copy to the Office of Materials in Ames, Iowa.

### **WELDING PILE POINTS TO H-STEEL PILES**

Weld quality, welder certification, welding processes, electrode handling and care, joint preparation and preheat for welding pile points (ASTM A27) to H-piles (ASTM A36) shall be in accordance with IM 558 with the following exceptions:

1. For manual shield metal arc welding, any E70X8 electrode listed on the approved filler metals list shall be used.
2. Electrode for flux core arc welding shall meet the requirements of one of the following: E71T-8J, E70T-6, E71T-8, E6T8-K6 or E71T8-Ni2, and shall be on the approved filler metals list.

### **MONITOR INSPECTIONS AND SAMPLING**

Monitor inspections and sampling may be performed by the Office of Materials to verify compliance with specifications.